GOVERNMENT OF INDIA
AGRICULTURE
LOK SABHA

UNSTARRED QUESTION NO:2788
ANSWERED ON:10.03.2003
FARM MECHANIZATION
BHAWANA GAWALI (PATIL);CHANDRA PRATAP SINGH;HARIBHAU MAHALE

Will the Minister of AGRICULTURE be pleased to state:

(a) whether Indian Agricultural Statistics Research Institute is currently running any project on long-term strategy for farm mechanization;

(b) if so, the details thereof;

(c) whether there is delay in completion of the project; and

(d) if so, the reasons therefor?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI HUKUMDEO NARAYAN YADAV)

(a) Yes, Sir. The Indian Agricultural Statistics Research Institute is currently conducting a study relating to `formulating long-term mechanization strategy for each agro-climatic/state`. This study is sponsored by the Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India.

(b) Details of the project may be seen at Annexure-I.

(c) No, Sir.

(d) Not applicable.

ANNEXURE-I

1. Background of this Project

The programme envisages to conduct an in-depth study, at micro-level, of the socio-economic, agro-climatic, infrastructural and other relevant factors prevailing in the different regions of the country, which have bearing on the spread of agricultural mechanization, agricultural productivity therein; and formulation of appropriate long-term farm mechanization strategies for the respective zones. It is likely that for a number of Zones / States, a single set of strategy/ programme may not be uniformly conducive to the spread of farm mechanisation and all-round and sustainable agricultural development there. As such, appropriate packages of agricultural mechanisation strategies and programmes for the different Zones / States need to be formulated according to the present status, potential and future needs of agricultural mechanisation there.

SAMPLING DESIGN

The study is being conducted for each Agro-climatic Zone / State covering about 20% of the districts representing a mix of developed, developing and least developed pockets. The basic purpose is to have complete insight of the situation and future needs in the direction of achieving full mechanization in a suitable time frame.

The sampling design adopted is Stratified Multi-stage Random Sampling. Out of a total of 585 districts in India, a sample of 120 districts has been selected randomly with due consideration to mechanization index of different districts within strata (State or group of States), following proportional allocation. From each selected district, a random sample of 40 villages has also been selected. Accordingly, the total number of selected villages is 4,800. Keeping in view the level and adoption of mechanisation (holding-size wise), out of each selected village, a sample of 10 households has been selected. Hence, the total number of randomly selected Households is 48,000. The reference year for the study is 2000-2001.

2. Objectives of this project

i) To study the soil types, land topography.

ii) To study the socio-economic conditions (financial status) of the farmers and farm labourers and assess their capabilities for acquiring and adopting the needed agricultural equipment /machinery.

iii) To study the present status, ultimate potential, the gaps, highlighting critical ones; for equipment used in various agricultural operations starting right from tillage to the post-harvest operations.

iv) To study the types and utility of various agricultural equipment, both conventional and improved ones, presently in use and those needed in future, for different crops / cropping systems in the Zones.

v) To study the impact of farm mechanization on employment of labour.

vi) To study the cropping pattern, both agricultural and horticultural, in the Zones, yields in relation to the national average, and their growth potential.

vii) To study and assess the use of farm power per hectare, ultimate requirement, ways and means to fulfil the gaps for various farm operations.

viii) To study the infrastructural facilities for the manufacture, marketing, after sale service / repairs availability etc. of agricultural equipment.

ix) To study and assess the adequacy and the requirement of infrastructure at the central and state levels, for planning, promotion, execution and extension of the various plan programmes on agricultural mechanization.

x) To identify new / improved farm equipment that may be needed by the farmers during next 20 years i.e. by the year 2020, for carrying out different farm operations.

xi) To formulate strategies and programmes that may be required for mechanization of agriculture during the period 2001-2005, 2005-2010, 2010-2015, 2015-20.

3. Progress

3.1 Details of districts from where data has been collection

The data collection work has been/is being carried out in 22 states covering 120 districts. The State-wise allocation of districts is as follows:

Sl.No.	Name of the States	No. of Districts	Name of the Districts
1.	M. P.	13	Vidisha, Sehore, Bhopal, Raisen Seoni, Chhindwara, Damoh, Nimar, Umeria, Katni, Jabalpur, Rewa, Korba
2.	U.P.	14	Baghpat, Bijnor, Muzaffarnagar, Varanasi, Mirzapur, Kanpur (Dehat), Lalitpur, Lucknow, Barabanki, Balia, Gonda, Mau, Basti, Gorakhpur
3.	Tamilnadu	8	Karaikal, Namakkal, Nilgiris, Tiruvanamalai, Coimbatore, Tuticorin, Erode, Salem
4.	Jharkhand	5	Ranchi, Dumka, Dhanbad, Deoghar, Gumla
5.	Punjab	4	Gurdaspur, Mansa, Ludhiana, Navashehar
6.	Kerala	4	Idukki, Pathanamthitta, Kollam, Alappuzha
7.	Andhra Pradesh	5	Rangareddi, Kurnool, Medak, Nalgonda, Warangal
8.	Uttranchal	3	Almora, Bageshwar, Nainital
9.	Karnataka	5	Haveri, Belgaum, Gadag, Dharwad, Chitradurga

10. Goa	1	Goa
11. Himachal Pradesh	2	Kangra, Una
12. Maharashtra	7	Yavatmal, Akola, Amravati, Thane, Raigarh, Pune, Satara
13. Bihar	6	Lakhisarai, Madhubani, Samastipur, Katihar, Vaishali, Siwan
14. NEH Region	9	Imphal (Manipur), Jaintia Pahar, East Khasi Hills (Meghalaya), Aizwal (Mizoram), West Tripura (Tripura), Mon (Nagaland), Tawang, West Kameng, East Siang (Arunachal Pradesh)
15. Orissa	6	Sonpur, Angul, Ganjam, Nayagarh, Khurda, Jagatsinghpur
16. Haryana	4	Bhiwani, Faridabad, Kaithal, Sonipat
17. Rajasthan	6	Udaipur, Kota, Chittorgarh, Sirohi, Jalore, Banswara
18. Assam	5	Jorhat, Dibrugarh, Dhemaji, Sibsagar, Golaghat
19. Jammu & Kashmir	3	Jammu, Kathua, Udhampur
20. West Bengal	5	Bankura, Hooghly, Midinipur, Burdhman, West & Sikkim Sikkim
21. Gujarat	5	Ahmedabad, Rajkot, Valsad, Vadodara, Banaskantha
Total Number of Districts	120	

3.2 Progress of work

The project has been planned in three phases. These phases are concurrent. The project started from July, 2000. As part of Phase-I, to crystallize the approach and modalities of the study, a Seminar-cum-Group Discussion was organized at the Institute during July 24-25, 2000, under the chairmanship of Dr. B.S. Pathak, Director, SPRERI, Vallabh Vidyanagar (Gujarat). Keeping in view the objectives, status papers on important topics have been prepared.

For smooth functioning and monitoring of the technical, administrative & financial, Progress of the project, a Project Management Committee (PMC) has been constituted under the chairmanship of Director, IASRI involving a senior official from ICAR also. So far seven meetings of the PMC have been convened and various important issues, relating to the smooth functioning of the project, have been discussed and decided.

As part of phase-II, a large scale survey, adopting stratified multi-stage random sampling design, was planned and conducted in 120 randomly selected districts taking the help of 24 Cooperating Centers of AICRP on FIM; GAU, Gujarat and SKUAST, Jammu. Th required funds, as per approved norms agreed by the Project Management Committee, were transferred to all the Centers. Training

relating to organization of field data collection work including filling up of the schedule etc has been imparted by the Institute Scientists at all the Centers. The Scientists and Field Officer of the Institute assisted the Research Engineers of Cooperating centers of AICRP on FIM in imparting the training relating to the field data collection work, to the hired Field Investigators, at all the Centers.At most of the Centers, the data collection work has been completed while at some Centers, it is still in progress. Completed (filled-in) Village and Household Schedules have been received from 22 Centers covering 92 districts.Scrutiny, checking and preparation of district profile work are in progress.

The entire information from the filled-in data schedules has to be transferred in digital forms for which a software in MS-Access has been prepared. List of different crops, agricultural operations, fertilizers/manures, plant protection chemical, power sources, farm implements, etc and their codes have been finalized and transferred in software package for data entry. Lists of selected villages in different districts/states/agro climatic zone along with their codes have been prepared and transferred in software package for data entry. Formats of different output tables have also been prepared.

The processed results obtained through the All-India survey will enable us to assess the present status, potential and gaps in the level of adoption of mechanization etc., which will be used for formulating long term mechanization strategy for each State as well as agro-climatic zone.

Data entry and analysis work is in process. Report writing work has also been initiated and the report is likely to be submitted by 30th June, 2003.